Fax Data Encryptor

CRYFAX-100

User's Manual

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1. PHYSICAL AND FUNCTIONAL DESCRIPTION

1.1 Physical description

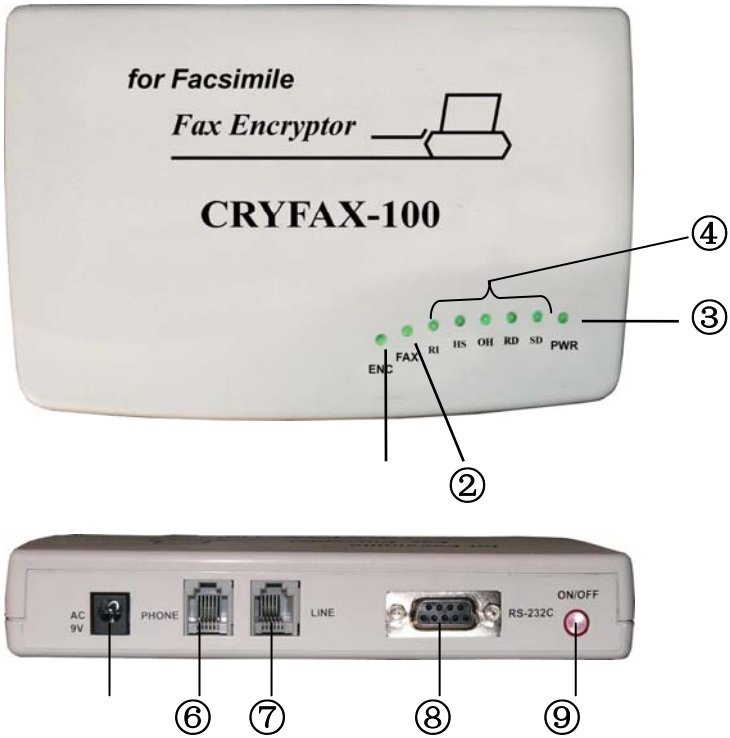

Fig.1. Location of controls

1) [ENC] LED: Encryption Indicator 2) [FAX] LED: Fax data Indicator

3) [PWR] LED: Power Indicator 4) Other LEDs: Data control Indicators

5) AC 9V Socket 6) Fax Jack

7) Line Jack 8) RS-232c Port

9) Power Switch

1.2. Functional description

1.2.1 Encryption Indicator ([ENC] LED)

ENC indicator indicates in secure mode. If ENC indicator is on, data is being encrypted or decrypted.

1.2.2 Fax data Indicator ([FAX] LED)

FAX indicator indicates that fax data is going on transmitting. When data transmitted, FAX indicator will blink.

1.2.3 Power Indicator ([PWR] LED)

[PWR] indicator indicates status of power supply.

1.2.4 Data Control Indicators (Other LEDs)

Data Control Indicators show data flows.

1.2.5 AC Power Socket (AC 9V)

This is a socket for AC 9V power supply.

1.2.6 Fax Jack (PHONE)

The RJ-11 standard jack is provided for connecting with a fax machine.

1.2.7 Line Jack (LINE)

The RJ-11 standard jack is provided for connecting a phone line coming from a local exchange. Through this jack, the CRYFAX-100 is connected to the PSTN.

1.2.8 RS-232c Port (RS-232C)

The port is provided for status setting, data controlling by computer and so on.

1.2.9 Power Switch (ON-OFF)

This is a on/off switch for power supply.

2. INSTALLATION

Typically the unit can be located on the desk or table in office or at home.

1) Connect Output connecter of AC Adaptor to [AC 9V] socket of the CRYFAX-100. And connect AC Adaptor to power outlet on the wall, or AC cord.
2) Remove the phone line from the facsimile.
3) Plug the phone line to [Line] jack of the CRYFAX-100.
4) Connect between the fax machine and the CRYFAX-100 with a telephone extension line.
5) Turn on [ON/OFF], the Power Switch of the CRYFAX-100. Then FAX, HS and PWR indicators will be light on.

(*) If one of FAX, HS and PWR indicators would not light on, Device will be not operated. Then turn off and on the Power Switch.

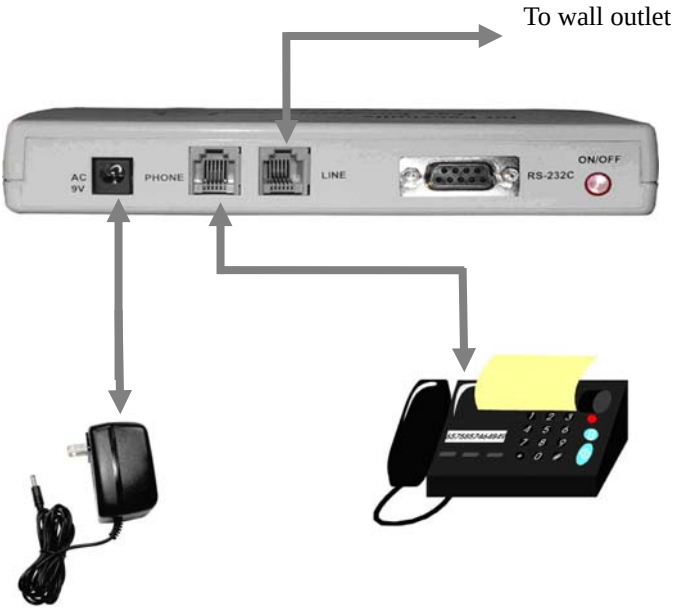

Fig.2. Connections of CRYFAX-100

3. OPERATION

1.1 Encrypted Fax Transmitting

1) Insert a document to transmit, into Fax machine.
2) Pick up the handset. And then check whether OH lights on.
3) To dial number, follow as:

(*) *You should dial number, after one second from OH light on.*

Attach "*" to the head of the number and "#" to the tail.

Example: When the number is "12345678", "*12345678#" will become the number to transmit.

4) When you hear the response signal from opposite fax, push **Start** button of fax machine as normal fax transmitting.

- Now ENC indicator will light up and FAX indicator will blink up. It says that fax data is encrypted and transmitted.
- When ENC indicator is out and blinking of FAX indicator is stopped, it has completed to transmit fax data.

(*) Don't use fax machine until blinking of FAX indicator is stopped.

(*) If you want to cancel the transmitting of fax data, turn off and on the power switch.

1.2 Usual Fax Transmitting

1) Insert a document to transmit, into Fax machine.
2) Pick up the handset.
3) Dial number as usual fax transmitting. (No attach "*" and "#" to head and tail of number)
4) When you hear the response signal from opposite fax, push **Start** button of fax machine as normal fax transmitting. Then FAX indicator will not blink.

1.3 Encrypted Fax Receiving

1) Set fax machine into auto-receiving mode.
2) Turn on the power switch of CRYFAX-100.
3) When receiving Encrypted Fax Data:

- ENC indicator will light up and FAX indicator will blink. (It says that encrypted fax data is received.)
- The Decrypted Fax Data will be outputted from fax machine.

1.4 Usual Fax Receiving

When fax machine is set into auto-receiving mode and CRYFAX-100 is turned on or off, it will receive usual fax data automatically.

4. MAINTENANCE / TROUBLESHOOTING

4.1 Maintenance

There is no special maintenance requirement except those for normal electronic equipment. The user may treat the unit as a telephone accessory and keep the unit in typical office environment or data center.

4.2 Troubleshooting

CRYFAX has been designed and manufactured to provide years of trouble-free operation. If a problem happens during a encrypted transmitting, it can usually be resolved by pressing Power switch and re-initiating the secure call. If you experience a problem with your CRYFAX, re-check all connections and attempt operation again.

5. SPECIFICATIONS

Key Management

- Diffie-Hellman Key Exchange

Cryptography

- Encryption Algorithm:

  256-bit KES (OFB) or

  Customized

Interfaces

- RJ-11(600ohm) to fax machine
- RS232C port for local console operation
- RJ-11(600 ohm) connection to 2 wire PSTN

Transmission

- Data Rate : Up to 14.4 kbps

Operating Environment

- Operating temperature : 0°C to +40°C
- Relative humidity : 3 to 90%

Physical

- Size: 30x123x100mm(HxDxW)
- Weight: 155g (only mainbody)
- Power: External power adapter for AC 9V

Operating Features

- LEDs for Power, Mode, Alarm
- Keypad: None

Optional Accessories

- Other Encryption Algorithms Customizable

Specifications are subject to change without prior notice.